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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,648	07/22/2003	Yuuko Maki	008312-0305076	4759

909 7590 08/19/2005

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EXAMINER

DOAN, DUC T

ART UNIT	PAPER NUMBER
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2188

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,648

Applicant(s)

MAKI, YUUKO

Examiner

Duc T. Doan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/22/03 8/16/04 2/14/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

Claims 1-15 are in the application.

Claims 1-15 are rejected.

Information Disclosure Statement

The Information Disclosure Statements received 07/22/03 8/16/04 and 2/14/05 have been considered. See attached PTO-1449(s).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al (US 5954806) and further in view of Tamura (US Pub 2002/0199073); (Evidentiary reference: Sherritt et al (US 6697895)).

As for claim 1, Ellis describes a disk drive comprising: a head configured to read recorded data from a disk medium; a read channel configured to reproduce data from a read signal which is output from the head (Ellis's Fig 3: #391, #392); a command unit configured to instruct a copying operation for allowing the data which is reproduced by the read channel to be transferred to an external device (Ellis's Fig 3: #DMA); an interface unit configured to effect a data transfer relative to the external device (Ellis's Fig 3: #SCSI Interface); Ellis does not describe the claim's detail of copying operation. However, Tamura describes a control unit configured to, in accordance with a copying operation instructed by the command unit, perform the copying operation while allowing the reproduced data to be transferred to the external device through the interface unit (Ellis's Fig 2; Fig 7; page 1, paragraph 8). It would have been obvious to one of ordinary skill in the art at the time of invention to include the back-up method as suggested by Tamura in Ellis's system to decentralizing the back up of a storage system.

As for claim 2, Ellis describes wherein the command unit includes a register configured to hold copying operation instructing information (Ellis's Figure 4: #460 Register file; Ellis describes these registers are used to hold any information for firmware to direct instructions to the protocol engine; column 4, lines 40-56).

As for claim 3, Ellis describes wherein the command unit includes a register configured to hold copying operation instructing information (Ellis's column 4, lines 40-56) and an input device configured to input the information (Ellis's Fig 4: #430 buffer, column 4, lines 35-40).

As for claim 4, Ellis does not describe the claim's detail of data operations. However, Tamura describes wherein the control unit performs a normal read operation for reading data from the disk medium or a normal write operation for writing data onto the disk medium (and,

when the copying operation is instructed by the command unit, performs the copying operation in preference to the normal read operation or write operation (Tamura describes in order to initiating a copy operation, the host sends a E-copy command to a copy manager on a disk system; Tamura's page 1, paragraph 8, lines 4-7).

As for claim 5, the claim rejected based on the same rationale as in the rejection of claim 2. The claim further recites referring to the register at a predetermined timing, the control unit performs the copying operation in accordance with the information set by the register. It has been known in the art that an i/o operation using protocol such as SCSI containing many phases. For example, during a link phase, an initiator and a target attempt to establish a link. During a command transfer phase, a command is sent from the initiator to the target. The initiator must allow a predetermined timing for the target to response in each phase. At the end of the timing window, obviously, the initiator would check for the operation's status (which may be kept in a register) to decide whether to continue or abort the operation. This teaching is evident in Sherritt et al (US 6697895, column 12, lines 16-25), which is introduced here as an evidentiary reference.

As for claim 6, the claim recites wherein, when the copying operation is performed, the control unit issues a command for allowing the reproduced data to be written into a recording medium in the external device and transfers the reproduced data to the external device through the interface unit. The claim rejected based on the same rationale as in the rejection of claim 1. Tamura further shows the copying operation to the external in Fig 2, page 1, and paragraph 8.

As for claim 7, the claim recites wherein, before performing the copying operation, the control unit makes a data transmit request for the external device via the interface unit and performs the copying operation upon receipt of a response to the transmit request which comes

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form the external device. The claim is rejected based on the same rationale as in the rejection of claim 1. Tamura describes in page 3, paragraph 34, lines 26-40 that the initiator sends a command (corresponding to the claim's data transmit request), back up device responses with FCP XFER READY, the disk system proceeds with data transfer.

As for claim 8, the claim recite wherein the interface unit includes a register configured to hold the copying operation instructing information and the register holds the information input from an input unit in the command unit and is accessed from the control unit. The claim rejected based on the same rationale as in the rejection of claim 2.

As for claim 9, the claim rejected based on the same rationale as in the rejection of claim 1. Tamura further describes wherein, in a copying source disk drive connected to an external interface unit of a host system (Tamura's Fig 3: #222 target port) and connected via on internal interface signal line of the host system to a copying destination disk drive (Tamura's Fig 2: #230 signal to the backup device), the interface unit is connected to the external interface unit in accordance with a copying operation by the control unit to transmit the reproduced data to the copying destination drive (Tamura's page 2, paragraph 29).

As for claim 10, the claim rejected based on the same rationale as in the rejection of claim 1.

Claim 11 rejected based on the same rationale as in the rejection of claim 2.

Claim 12 rejected based on the same rationale as in the rejection of claim 5.

Claim 13 rejected based on the same rationale as in the rejection of claim 6.

Claim 14 rejected based on the same rationale as in the rejection of claim 7.

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As for claim 15, the claim recites when the data read from the disk medium is to be transferred in accordance with the copying operation command, transferring a command for instructing the writing of the data on a disk medium included in the copying destination disk drive. The claim rejected based on the same rationale as in the rejection of claim 1. Tamara further describes in page 3, lines 8-26 that the parameter list having all the LUN's for the destination disk drive.

Conclusion

When responding to the office action, Applicant is advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Doan whose telephone number is 571-272-4171. The examiner can normally be reached on M-F 8:00 AM 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin L. Ellis
Primary Examiner

